

Southern Appalachian Creature Feature Podcasts

Floodplain Mapping

Good morning and welcome to the Southern Appalachian Creature Feature. This week, we'll take a look at the new floodplain maps and what this means to wildlife.

A slow moment often finds me looking at area real estate listings – perhaps hoping to find the perfect old farm. I never find that real estate gem, but I recently came across a beautiful home sitting almost on top of a beautiful mountain stream.

I don't know anything about that house beyond what I read in the flyer, but one thing is certain about streams – they rise and fall based on precipitation, and we tend to have problems when streams fall too much, like recently, or when they rise too high, as happened when tropical storms Frances and Ivan crossed the Southern Appalachians.

Though floods haven't been on the minds of people in the Southern Appalachians recently, the state of North Carolina is wrapping up its latest round of floodplain mapping, something that has the potential to impact homeowners, communities, and wildlife too.

With enough rainfall, a river's banks aren't able to contain all the water. As a result, some of the water spills over the banks into the often broad, flat areas beside a river. These areas are called floodplains. Floodplains are going to flood. Not a question of if, but simply of when. Ideally, knowing where these flood-prone areas are helps developers and land planners keep new construction out of them.

In fact, there's a lot of benefit to keeping development out of these areas. Floodplains store floodwater, allowing it to soak into the ground, and they slow down the speed of floodwaters - both of which help minimize downstream damage to life and property. A forested floodplain protects water quality by capturing dirt, trash, or chemicals washing off uphill sites during a heavy rain, and keeps stream banks from eroding away – important to the people living downstream and the fish and other animals in the stream. Floodplains change over time. Each new building, road or parking lot means water that would've soaked into the ground to be stored in the soil, now flows across the shingles, concrete or asphalt, down a storm drain and into a stream, adding to downstream flood problems, and widening the downstream floodplain.

The floodplain maps are a result of the National Flood Insurance Act of 1968 which requires communities to map the 100-year floodplain, or the areas that have a 1% chance of flooding each year, in order to qualify for federal flood insurance. These maps are then used to determine flood insurance rates.

Not everyone is going to be happy about the new, more accurate maps. Some people are discovering that floodplains have grown to include their property, which in turn affects their flood insurance rates. However, using the maps in decisions about where we build is an important step both in protecting our rivers and limiting the danger posed by future floods.

For WNCW and the U.S. Fish & Wildlife Service, this is Gary Peeples.